

A.2.B.10.15TN Answer to Problem 15:

1. $\frac{1}{3^2}$ (property $a^{-n} = \frac{1}{a^n}$)

4. $\frac{1}{9}$ (property $a^{-n} = \frac{1}{a^n}$)

7. $\frac{3^3}{3^5}$ (property $\frac{a^m}{a^n} = a^{m-n}$)

Teacher Notes:

Students should understand the relationship of how negative exponents impact a number. Understanding is more than finding the value of numbers derived from a calculator. Equivalence to 3^{-2} is more than finding other representations of .1 repeating (or .111...). Understanding that negative exponents generate the reciprocation of the number is more important than a numeric solution.